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09/998,734	10/31/2001	James A. Lynn	01-022	7025
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LSI LOGIC CORPORATION 1621 BARBER LANE MS: D-106 MILPITAS, CA 95035			EXAMINER SWEARINGEN, JEFFREY R	
			ART UNIT	PAPER NUMBER
			2145	

DATE MAILED: 01/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/998,734

Applicant(s)

LYNN ET AL.

Examiner

Jeffrey R. Swearingen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 31 October 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☒ Claim(s) 2 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 October 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION*****Drawings***

1. The drawings are objected to under 37 CFR 1.83(a) because they fail to show the structure of the invention as described in the specification. Multiple items in Figure 1 are labeled as item 20, and item 20 is shown in two different embodiments. The interconnection between the Enclosed Service Module on the left side of Figure 1 and the embodiment on the right side of Figure 1 and their interrelation is unknown. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: Figure 1, item 10, Figure 1, item 80, Figure 2, item 100. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

1. The disclosure is objected to because of the following informalities: On page 4, paragraph [0010], Applicant makes reference to a "forgoing general description." While forgoing is the proper spelling of a noun or a transitive verb, when used as an adjective as in this context the correct word usage is "foregoing". Page 7, paragraph [0027], lines 23-24 includes "The form herein before described...", which is the beginning of an incomplete sentence.

Appropriate correction is required.

### ***Claim Objections***

2. Claim 2 objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form: Claim 2 states that the bridge controller sends the change speed frame initially to either the first enclosure services module or the last enclosure services module. Claim 1 states that the bridge controller is connected to both the first enclosure services module and the last enclosure services module and that the enclosure services modules are connected in sequence. In order to send the change speed frame to all enclosure services modules as stated in claim 1, the change speed frame must go initially to either the first enclosure services module or the last enclosure services module.

### ***Double Patenting***

3. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

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4. Claims 1-22 are directed to the same invention as that of claims 1-20 of commonly assigned U.S. Patent 6,732,201. The issue of priority under 35 U.S.C. 102(g) and possibly 35 U.S.C. 102(f) of this single invention must be resolved.

5. Although the conflicting claims are not identical, they are not patentably distinct from each other because the difference between the patented claims and the presented claims consist only for the provision of sending a frame that changes the speed of the channel rather than detecting a change in the speed of the channel, and with claim 5 of the instant application which allows a third channel to be present in the fibre channel system. The differences between the claimed inventions are minimal, and constitute an obvious-type variation of each other, since sending a message via a frame has been widely implemented in the networking arts and was well known in the art at the time of the invention. Sending a message in a frame was further well known in the implementation of a Fibre Channel system at the time of the invention. Use of large numbers of channels in a fibre channel system was also well known at the time of the art and thus constitutes an obvious variation. This change in sending the notification to enclosure services modules that the speed of the channel has been altered is not a patentable difference.

Since the U.S. Patent and Trademark Office normally will not institute an interference between applications or a patent and an application of common ownership (see MPEP § 2302), the assignee is required to state which entity is the prior inventor of the conflicting subject matter. A terminal disclaimer has no effect in this situation since the basis for refusing more than one patent is priority of invention under 35 U.S.C. 102(f) or (g) and not an extension of monopoly.

Failure to comply with this requirement will result in a holding of abandonment of this application.

#### ***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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7. Claims 1-3, 9-12, 14, 16-24 are rejected under 35 U.S.C. 102(b) as being anticipated by Fibre Channel Framing and Signaling working draft proposal, Rev. 1.30, published July 9, 2001, hereafter referred to as FC-FS Draft Standard.

8. Regarding claim 1, the FC-FS Draft Standard discloses a multi-ported system with two links that allow for speed negotiation between ports on a channel. The Speed Negotiation algorithm asks for a speed change and then alters the speed of the channel based upon that request. [See FC-FS Draft Standard, pages 532-533.] The diagram shown only presents two ports, but since the Speed Negotiation algorithm works in the Fibre Channel system, which commonly utilizes multiple ports in a daisy chain or loop, the diagram could be inherently extended to cover all ports in the chain. By this rationale claim 1 is rejected.

9. Regarding claim 2, the FC-FS Draft Standard is applied as in claim 1. The limitations of this claim are substantially the same as the limitations of claim 1. Therefore by the rationale used to reject claim 1, claim 2 is rejected.

10. Regarding claim 3, the FC-FS Draft Standard is applied as in claim 2. The FC-FS Draft Standard also discloses waiting for a channel before negotiating the speed change. [See FC-FS Draft Standard, page 536, Figure 60.] By this rationale claim 3 is rejected.

11. Regarding claim 9, the limitations of this claim are substantially the same as the limitations of claim 1. Therefore the rationale for rejecting claim 1 is applicable for rejecting claim 9. By this rationale claim 9 is rejected.

12. Regarding claim 10, the limitations of this claim are substantially the same as the limitations of claim 1. Therefore the rationale for rejecting claim 1 is applicable for rejecting claim 10. By this rationale claim 10 is rejected.

13. Regarding claim 11, the FC-FS Draft Standard is applied as in claim 10. The FC-FS Draft Standard further discloses that Fibre Channel is bi-directional in nature. [See FC-FS Draft Standard, page 17, section 4.1.] By this rationale claim 11 is rejected.

14. Regarding claim 12, the FC-FS Draft Standard is applied as in claim 10. The FC-FS Draft Standard deals with fibre channel devices being connected. [...specifies a variety of media, and

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*associated drivers and receivers capable of operating at various speeds.* See FC-FS Draft Standard, page 17, section 4.1.] By this rationale claim 12 is rejected.

15. Regarding claim 14, the FC-FS Draft Standard is applied as in claim 10. Examiner takes Official Notice that a microprocessor can be integrated into a node. Microprocessors were well known in the art at the time of the invention and had been in use in multiple applications in the networking arts for decades preceding the invention. The addition of a microprocessor is commonplace for most networking applications. By this rationale claim 14 is rejected.

16. Regarding claim 16, the limitations of this claim are substantially the same as the limitations of claim 1. Therefore the rationale used to reject claim 1 is also used to reject claim 16. By this rationale claim 16 is rejected.

17. Regarding claim 17, the FC-FS Draft Standard is applied as in claim 16. The FC-FS Draft Standard discloses having a forward and a reverse connection between two nodes. [See FC-FS Draft Standard, page 532, Figure 58.] By this rationale claim 17 is rejected.

18. Regarding claim 18, the FC-FS Draft Standard is applied as in claim 17. The FC-FS Draft Standard discloses negotiating speed changes on a channel, which constitutes a parameter. [See FC-FS Draft Standard, page 532, section 29.1.] By this rationale claim 18 is rejected.

19. Regarding claim 19, the FC-FS Draft Standard is applied as in claim 18. The FC-FS Draft Standard further discloses the presence of a controller and nodes [*a bridge controller and enclosure service modules.* See FC-FS Draft Standard, page 21, Figure 3.] By this rationale claim 19 is rejected.

20. Regarding claim 20, the FC-FS Draft Standard is applied as in claim 19. The FC-FS Draft Standard further discloses transmitting information between nodes in a frame format. [See FC-FS Draft Standard, page 36, section 5.1.] The FC-FS Draft Standard deals with fibre channel devices being connected. [*...specifies a variety of media, and associated drivers and receivers capable of operating at various speeds.* See FC-FS Draft Standard, page 17, section 4.1.] By this rationale claim 20 is rejected.

21. Regarding claim 21, the FC-FS Draft Standard is applied as in claim 20. The FC-FS Draft Standard further discloses passing a command signal to change a parameter between nodes using a channel. [See FC-FS Draft Standard, pages 532-546.] By this rationale claim 21 is rejected.

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22. Regarding claim 22, the limitations of this claim are substantially the same as the limitations of claim 1. Therefore the rationale for rejecting claim 1 is equally applicable to claim 22. By this rationale claim 22 is rejected.

23. Regarding claim 23, the limitations of this claim are substantially the same as the limitations of claim 1. Therefore the rationale for rejecting claim 1 is equally applicable to claim 23. By this rationale claim 23 is rejected.

24. Regarding claim 24, the limitations of this claim are substantially the same as the limitations of claim 1. Therefore the rationale for rejecting claim 1 is equally applicable to claim 24. By this rationale claim 24 is rejected.

***Claim Rejections - 35 USC § 103***

25. Claims 4, 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over the FC-FS Draft Standard.

26. Regarding claim 4, the FC-FS Draft Standard is applied as in claim 3. The FC-FS Draft Standard further states that the Speed Negotiation algorithm is specified for only one port at a time, but fails to explicitly state that each port in a channel must be negotiated individually in order. However, the Speed Negotiation algorithm is applied between links as shown in Figure 58. In Figure 6 [page 24] ports are shown in a loop topology. It would be obvious to one of ordinary skill in the art that in order to negotiate speed on all ports in a channel, one at a time, that they would have to be done in consecutive order after each port has its individual speed negotiated based upon the limits of the Speed Negotiation algorithm as stated in Section 29 of the FC-FS Draft Standard. By this rationale claim 4 is rejected.

27. Regarding claim 6, the FC-FS Draft Standard is applied as in claim 4. The FC-FS Draft Standard deals with fibre channel devices being connected. [...*specifies a variety of media, and associated drivers and receivers capable of operating at various speeds.* See FC-FS Draft Standard, page 17, section 4.1.] By this rationale claim 6 is rejected.



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28. Regarding claim 7, the FC-FS Draft Standard is applied as in claim 4. The FC-FS Draft Standard further discloses transmitting information between nodes in a frame format. [See FC-FS Draft Standard, page 36, section 5.1.] By this rationale claim 7 is rejected.

29. Regarding claim 8, the FC-FS Draft Standard is applied as in claim 4. The FC-FS Draft Standard further discloses switching speed within 1 millisecond from the time the algorithm asks for a speed change. [Examiner considers this to meet the criteria of "on-the-fly." See FC-FS Draft Standard, page 533.] By this rationale claim 8 is rejected.

30. Regarding claim 15, the limitations of this claim are substantially the same as the limitations of claim 8. Therefore the rationale for rejecting claim 8 is equally applicable to claim 15. Claim 15 has the limitations of claim 1 and the additional limitation of operating using the method of claim 8. By this rationale claim 15 is rejected.

31. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over the FC-FS Draft Proposal and Wall et al. (U.S. Patent No. 6,507,923).

32. Regarding claim 5, the FC-FS Draft Proposal is applied as in claim 4. The FC-FS Draft proposal fails to explicitly disclose use of a third channel in the system.

33. However, Wall discloses a Fibre Channel system that can accommodate up to sixteen separate channels. [See Wall, column 2, lines 60-65.]

34. It would have been obvious to one of ordinary skill in the networking art at the time of the invention to combine the teachings of Wall and the FC-FS Draft Proposal. The addition of extra channels allows for greater troubleshooting abilities in a more complex Fibre Channel system. [See Wall, column 1, line 29 – column 2, line 57.] The FC-FS Draft Proposal gives motivation for the combination by stating that it can allow for improvements, clarifications, and other capabilities, which will improve the performance of Fibre Channel products and fit those products for new applications. [See FC-FS Draft Proposal, page ii, Abstract.] By this rationale claim 5 has been rejected.

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35. Claim 13 rejected under 35 U.S.C. 103(a) as being unpatentable over the FC-FS Draft Proposal and Mulvey et al. (U.S. Patent No. 6,629,216).

36. Regarding claim 13, the FC-FS Draft Proposal is applied as in claim 10. The FC-FS Draft Proposal fails to disclose the ability to bypass a disk drive.

37. However, Mulvey discloses a fibre channel system that has the ability to bypass disk drives. Mulvey discloses a by-pass selector section, which can bypass a disk drive. [See Mulvey, Abstract. See Mulvey, column 2, lines 31-49.]

38. It would have been obvious to one of ordinary skill in the networking art at the time of the invention to combine the teachings of the FC-FS Draft Proposal and Mulvey for the purpose of preventing disruption of the system if one drive goes bad. [See Mulvey, column 1, lines 56 – 67.] The FC-FS Draft Proposal gives motivation for the combination by stating that it can allow for improvements, clarifications, and other capabilities, which will improve the performance of Fibre Channel products and fit those products for new applications. [See FC-FS Draft Proposal, page ii, Abstract.] By this rationale claim 13 has been rejected.

### ***Conclusion***


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey R. Swearingen whose telephone number is (571) 272-3921. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Harvey can be reached on (571) 272-3896. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*JMS*

  
JACK D. HARVEY  
SUPERVISOR, PATENT EXAMINER